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APPLICATION NO.	F	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/497,421	02/07/2000		Tai-Chong Chai	71711-2-8	7481	
25269	7590	08/27/2002				
DYKEMA			EXAMINER			
1300 I STRE		E, THIRD FLOOR	CRUZ, LOURDES C			
WASHINGTON, DC 20005						
				ART UNIT	PAPER NUMBER	
			2827			
				DATE MAILED: 08/27/2002		

Please find below and/or attached an Office communication concerning this application or proceeding.

,			9/M				
		Application No.	Applicant(s)				
		09/497,421	CHAI ET AL.				
01	fice Action Summary	Examiner	Art Unit				
		Lourdes C. Cruz	2827				
The Period for Rep	The MAILING DATE of this communication appears on the cover sheet with the correspondence address						
A SHORTEI THE MAILIN - Extensions of after SIX (6) M - If the period fo - If NO period fc - Failure to reply - Any reply rece	NED STATUTORY PERIOD FOR REPLY NG DATE OF THIS COMMUNICATION. time may be available under the provisions of 37 CFR 1.13 MONTHS from the mailing date of this communication. or reply specified above is less than thirty (30) days, a reply or reply is specified above, the maximum statutory period we ye within the set or extended period for reply will, by statute, vived by the Office later than three months after the mailing term adjustment. See 37 CFR 1.704(b).	6(a). In no event, however, may a reply be tim within the statutory minimum of thirty (30) days ill apply and will expire SIX (6) MONTHS from to become ABANDONEC	ely filed will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133).				
1)⊠ Resp	oonsive to communication(s) filed on 23 J	<u>uly 2002</u> .					
2a) <u>□</u> This	action is FINAL . 2b)⊠ Thi	s action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims							
4)⊠ Claim	(s) <u>1-8 and 10-16</u> is/are pending in the a	oplication.					
4a) Of	the above claim(s) is/are withdraw	n from consideration.					
5) Claim	(s) is/are allowed.						
6)⊠ Claim	(s) <u>1-8 and 10-16</u> is/are rejected.						
7) Claim	(s) is/are objected to.						
8)☐ Claime	(s) are subject to restriction and/or pers	election requirement.					
9)∐ The sp	ecification is objected to by the Examiner						
10)☐ The dra	awing(s) filed on is/are: a)□ accept	ted or b)⊡ objected to by the Exan	niner.				
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
11)☐ The proposed drawing correction filed on is: a)☐ approved b)☐ disapproved by the Examiner.							
If approved, corrected drawings are required in reply to this Office action.							
12)☐ The oath or declaration is objected to by the Examiner.							
Priority under 3	35 U.S.C. §§ 119 and 120						
13)⊠ Ackno	wledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a)	-(d) or (f).				
a)⊠ All	b) ☐ Some * c) ☐ None of:						
1.⊠	Certified copies of the priority documents	have been received.					
2.	Certified copies of the priority documents	have been received in Application	on No				
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 							
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). a) The translation of the foreign language provisional application has been received.							
	vledgment is made of a claim for domestic	* *					
Attachment(s)							
2) Notice of Draf	erences Cited (PTO-892) itsperson's Patent Drawing Review (PTO-948) isclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informal P	(PTO-413) Paper No(s) atent Application (PTO-152)				

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DETAILED ACTION

This Office action is in response to an Amendment filed December 3,2001.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the more than one aperture traversing members of claim 5 must be shown or the feature canceled from the claim. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office Action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter that the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12-14 recite a "plurality of unitary sidebars". Unitary by definition means undivided, whole. However, according to the description of the invention and that shown in the drawings there is only one structure comprised of multiple sidebars that can read on an undivided or whole structure (a whole structure comprised of four sidebars 52). The word "plurality" in conjunction with unitary makes the claims indefinite for it is not

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clear whether a plurality of sidebars make-up for a structure with an aperture in it, or if a

plurality of undivided structures make-up for a plurality of such apertures as

consequence.

Claim 1 recites "a chip-support zone for the frame having defined dimensions". It

is unclear to the examiner whether the chip-support zone has defined dimensions or if

the frame does. Additionally, the claim recites "is smaller a corresponding dimension of

the chip". Does Applicant mean smaller than a..?

Claim Rejections - 35 USC § 102

Claims 12,13,14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated

by Yoo et al. (US 5661338).

Yoo discloses a lead frame 1 with side bars (See Fig. 3) defining an aperture S5

and a chip support zone said zone being smaller than the chip and each side bar having

an upper surface for engaging the chip.

Yoo also teaches:

Said chip supporting zone engaging the bottom of the chip a location remote

from higher stress regions

Rectilinear side bars

Curvilinear side bars (Fig. 2), See openings 5 under chip C

One or more aperture traversing members (a7-a10, Fig. 6)

Leads 3, support members T connected to the side bars

Side bars intersecting to define corners

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An inherently present ground ring

See Fig 2 wherein Yoo teaches edges of the outer frame defined by

the side bars being disposed within the outer chip C edge (Claim 12

and 13)

An apertured frame, said frame being a generally circular frame

(Claim 14)

Regarding claim 16, see that Yoo discloses a lead frame for an integrated circuit

(See Figs. 3 and 6) having a frame engaging bottom surface (part of C engaging the

frame) for attachment to the frame by means of a chip attach material (Col.2, lines15-

20), said chip being formed with outer edges having defined dimensions, said frame

comprising:

A unitary apertured frame having a chip supporting surface said frame

having an outer edge and an aperture S5 formed with an inner edge defining the

through central aperture said inner and outer edges (see rectangular shaped hole, see

the bars and their edges) being uniformly space apart defining therebetween a chip-

support zone having defined dimensions, said outer edge of the frame being recessed

(See Fig. 6) such that the frame is smaller than a corresponding dimension of the chip.

Response to Arguments

Applicant's arguments filed 5-17-02 have been fully considered. See that the

prior art rejection over claims 1-8,10,11 and 15 have been withdrawn since the claims,

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as best understood by the examiner, are not anticipated by the prior art. However, see that the claims have only been examined as best understood due to the 112 problems stated above. The claims seem to define a plurality of uniform sidebars, which is not found in the prior art.

Regarding all other claims, see that they have not been amended to overcome any of the 112 issues discussed in the previous Final Office Action. Therefore, the previous rejections (Including the rejection under 102 (b) over 5661338) are stated above and are assumed to be proper since Applicant has failed to traverse them.

Moreover, see that the Applicant in the response/remarks has obviated the objection to the Drawings, and that a correction to the drawings or a traversal to the objection has not been filed. See that in order to avoid the mailing of a Non-responsive Office Action, applicant should have responded to such objection and to the rejections stated.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kitano, Mori, Sawada, Yasuhara, Yamaguchi, Kajihara, Terada, Okumura, and Ishikawa disclose lead frames with window openings to reduce the popcorn effect due to thermal strain.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lourdes C. Cruz whose telephone number is 707-306-5691. The examiner can normally be reached on M-F 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Talbot can be reached on 703-308-1690. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-77229883 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Lourdes C. Cruz Examiner Art Unit 2815

Lourdes Cruz August 13, 2002

> JEROME JACKSON PRIMARY EXAMINER